

REMARKS

Reconsideration and allowance of the above identified application are requested.

Information Disclosure Statement

The attached IDS includes documents cited in this response to the Office action mailed September 22, 2004. A check that includes the fee for submitting the IDS after the first Office action is enclosed.

Specification.

The paragraph that starts on page 2, line 26 is amended to clarify the claimed invention within the scope of the original application. The Applicant's invention claims dips made with an emulsified liquid shortening composition comprising dietary fiber gel. The dietary fiber gel of the invention is disclosed by Inglett (U.S. Patent, Number 5,766,622, dated June 16, 1998), which was incorporated by reference into the original as-filed application at page 2, line 32. Information included by reference is "as much a part of the application as filed . . . , and should be treated as part of the text of the application as filed." MPEP § 2163.07(h). Clearly, dietary fiber gel as disclosed by Inglett is part of the as-filed application.

Inglett teaches at Col. 1, lines 9-12, that it is well known that "[d]ietary fibers are generally considered to be the soluble and insoluble components of cell walls . . . [and] consist primarily of cellulose, hemicellulose," and so forth. In the process of the invention, Inglett at Col. 3, lines 24-32, explicitly teaches that "[f]ollowing at least the second stage of treatment . . . the solids are separated for the liquids and the recovered insolubles are carried forward to the next processing step, [wherein] the second stage separation is intended to isolate and recover the gel product of this invention," i.e., dietary fiber gel. The source of the dietary fiber is agricultural by-products such as grain seed brans, hulls, and so forth is noted by Inglett at Col. 3, lines 3-8.

Inglett implicitly teaches that dietary fiber gel is insoluble dietary fiber derived from the alkaline treatment of agricultural by-products. Inglett at Col. 3, line 33 to Col. 4, line 36 teaches the first stage of treatment is "preferably in the range of about . . . pH 9-13. The gel products . . . contained in the insoluble fraction . . . from the first stage . . . are subjected to [a] second stage . . . [of] treatment . . . at alkali pHs, preferably in the range of 7-12. Following the second stage . . .

solids are again separated from the liquids . . . [and] the recovered solids consist of cellular debris in the form of a hydrated gel. The gel may be dried.” One skilled in the art would know that solids separated from liquid after the second stage are implicitly insoluble dietary fiber. Clearly, because Inglett explicitly and implicitly teaches dietary fiber gel as the insoluble component of dietary fiber that can be recovered and formed into a gel, so does the as-filed application.

As to the physical form of the dietary fiber gel, Inglett at Col. 5, lines 43-45, explicitly teaches that dietary fiber gel “may exist in either the hydrated form as gels or in the dehydrated form as flakes or powder.”

Inglett inherently teaches an amorphous dietary fiber gel because the gel exhibits a smooth morphology. For example, at Col. 4, line 63 to Col. 5, line 3, Inglett teaches that dietary fiber gel has “a smooth sheet- or film-like morphology” based on scanning electron photographs at magnifications of 500-1000X, and “[t]he smoothness of the original gels are restored after reconstitution of the dried products.” Typically, crystal structures are characterized by sharp edges that result in rough, jagged, and under scanning electron microscopic magnification a generally non-smooth morphology such that one skilled in the art would know that dietary fiber gel that has a smooth morphology would be inherently amorphous.

Thus, dietary fiber gel in the Applicant’s invention comprises non-particulate amorphous insoluble dietary fiber derived from the alkaline treatment of agricultural by-products. Although the specification has been amended so as to more reasonably convey the invention, and more specifically what dietary fiber gel is to one skilled in the art, the amendments to the specification are expressly, implicitly, or inherently supported by the Inglett patent, a part of the original as-filed application.

35 U.S.C. § 102 Claim Rejection.

The Applicants traverse the rejection of Claims 1 and 2 as anticipated under 35 U.S.C. § 102 (b) because the McGinley reference cited in the Examiner’s Office Action teaches fat substitutes comprising coated microcrystalline cellulose and water. The coated microcrystalline cellulose includes at least two components, an inner core of microcrystalline cellulose and a coating of galactomannan gum. Optionally, addition components such as flavor enhancing lipids can coat the microcrystalline cellulose core. The Applicant’s invention on the other hand

discloses a fat substitute for use in making dips that comprises non-coated, amorphous dietary fiber gel, water and a lipid, wherein the lipid is the fat and oil component of the shortening.

There is nothing disclosed in McGinley that anticipates the Applicants' invention as suggested by the Examiner. Anticipation depends upon prior publication of the invention. 35 U.S.C. § 102(b). The establishment of anticipation requires that every element and limitation of the claimed invention can be found in a single prior publication. *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987). The Applicants traverse the rejection because nothing in McGinley teaches all the elements and limitations of the Applicants' claimed invention.

McGinley teaches a fat substitute comprising an aggregate and water. The aggregate is a coated microcrystalline cellulose spheroid particle wherein an outer surface of the particle is coated with a gum. Optionally, the aggregate can be further covered with a flavor enhancing lipid. Although the Examiner implied that aggregate in McGinley is the same material as dietary fiber gel, the aggregate in McGinley is in fact a different compound than dietary fiber gel.

McGinley does teach certain foods that comprise a fat substitute comprising coated microcrystalline cellulose and water, but McGinley does not specifically teach dips. The applicant's invention on the other hand teaches dips comprising emulsified liquid shortening. The emulsified liquid shortening, a fat substitute, comprises non-coated amorphous dietary fiber, water, and lipid, wherein the lipid is the fat and oil component of the shortening. Nothing in the cited prior art reference teaches the claimed invention, dips comprising emulsified liquid shortening comprising non-coated amorphous dietary fiber gel, water, and lipid, wherein the lipid is the fat and oil component of the shortening.

For example, at Col. 1, lines 19-22, McGinley teaches a fat substitute which "relates to a substantially spheroidal shaped particulate aggregate of microcrystalline cellulose (MCC) and a galactomnannan gum (GG) . . . which has a fat-like consistency, appearance and mouth feel when reconstituted in food." McGinley specifically defines aggregate at Col. 1, lines 31-35, as "a stable, substantially physical mixture of two or more components in its wet or dry state but which is more firmly bound when dried, yet remains intact if reconstituted in water under typical food processing conditions." McGinley further teaches at Col. 5, lines 20-26, that aggregate stability is achieved when the gum in the aggregate composition is present "in an amount sufficient to cover and form a stable aggregate with the MCC and thus provide sufficient cover

of the MCC particles to mask the characteristic taste of the cellulose.” At Col. 5, lines 32-33, McGinley further notes that particulate aggregates are produced such that “the gum covers, i.e., is absorbed on, the cellulose.” Optionally as taught by McGinley at Col. 6, lines 45-61, a third component can be added to the aggregate “to impart additional properties” to the aggregate, such as “for the purpose of modifying the surface characteristics of the MCC-GG aggregate by creating the flavor and taste sensation of fat.” The coated microcrystalline cellulose is dispersed in water to form a fat substitute as disclosed by McGinley at Col. 7 line 57 to Col. 8 line 20. At Col. 8, lines 21-25, McGinley teaches the fat substitute can be used in “other foodstuffs” without specifically naming dips. Thus, McGinley teaches other foodstuffs comprising a fat substitute comprising coated microcrystalline cellulose, and water, wherein the coated microcrystalline cellulose can optionally further comprise a flavor enhancing lipid, but does not teach dips comprising emulsified liquid shortening comprising non-coated dietary fiber gel, water and lipid, wherein the lipid is the fat and oil component of the liquid shortening.

Finally, McGinley teaches generally “other foodstuffs” comprising emulsified liquid shortening, while this application, Application No. 10/689,193, is directed towards the specific use of emulsified liquid shortenings in dips. Although McGinley’s invention for “other foodstuffs” may anticipate a genus of food products that comprise a fat substitute comprising coated microcrystalline cellulose, nothing in McGinley specifically teaches a separate and distinct food specie of dips that are formulated with an emulsified liquid shortening comprising dietary fiber gel, water, and lipid.

Nonstatutory Double Patenting Rejection.

The Applicant traverses the provisional rejection of Claims 1-2 as obviousness-type double patenting based on a judicially created doctrine because the references, Application No. 10/689,267 in view of McGinley arguably teaches other foodstuffs comprising a fat substitute in a non-liquid form such as a gel, powder, flakes, comprising coated microcrystalline cellulose, and water wherein the coated microcrystalline cellulose is optionally coated with a flavor enhancing lipid. The Applicant’s invention on the other hand teaches dips comprising emulsified liquid shortening comprising dietary fiber gel comprising amorphous dietary fiber gel that is not a coated particle, water and lipid.

The References Do Not Teach the Claimed Invention

There is nothing disclosed in the copending Application No. 10/689,267 for dressings in view of McGinley that teaches the modification of the references suggested by the Examiner. Obviousness, including obviousness-type double patenting, depends on the differences between a claimed invention and the prior art. *See generally, 35 U.S.C. § 103(a)*. The establishment of obviousness requires that the prior art must teach or suggest all the limitations of the claimed invention. *See also, In re Royka*, 490 F.2d 981, 984-85 (CCPA 1974). The Applicant traverses the rejection because nothing in Application No. 10/689,267 in view of McGinley teaches all the elements and limitations of the Applicant's claimed invention.

Application No. 10/689,267 teaches dressings comprising emulsified liquid shortening, a fat substitute, containing dietary fiber gel such that the solids within the dietary fiber gel represent 0.1 percent to 0.5 percent and 0.1 percent to 3.0 percent by weight of the overall dressing. McGinley specifically teaches dressings and superficially teaches spreads that comprise fat substitutes that comprise coated particulate microcrystalline cellulose, which is arguably coated dietary fiber particles, and water wherein the coated microcrystalline cellulose can be optionally covered with a flavor enhancing lipid.

The Examiner states that the Office interprets dips to inherently include spreads, but provides no basis for this interpretation. Although McGinley specifically mentions spreads and the Applicant's application is specifically directed to dips, neither McGinley nor the Applicant specifically define spreads or dips because these foods are commonly known food types. In fact, these food products are so common and generally well known they have known dictionary meanings. For example, a dictionary definition for dip is "a creamy mixture into which pieces of food can be dipped, often served with crackers or chips," such as "sour cream and onion dip," while a dictionary definition for spread is "any soft substance, as jam, butter, etc., used for spreading on bread, wherein the dictionary definition of spreading includes "to distribute in a thin layer; smear: as, she spread butter on the toast" and "to cover by smearing with a thin layer of something: as, spread this slice with jelly." Clearly, one skilled in the art would know that dips such as sour cream and onion dips do not inherently include spreads such as jelly or jam.

Because dips do not inherently include spreads, clearly Application No. 10/689,267 for dressings in view of McGinley teaches spreads comprising non-emulsified non-liquid fat substitutes containing coated dietary fiber such that the solid coated dietary fiber represent 0.1

percent to 0.5 percent and 0.1 percent to 3.0 percent by weight of the overall spread, wherein the coated dietary fiber can be optionally coated by a flavor enhancing lipid. No combination of the cited prior art references teach the claimed invention, dips comprising emulsified liquid shortening comprising dietary fiber gel that is neither a particle nor coated, water, and lipid, wherein the solids within the dietary fiber gel represent 0.1 percent to 7.0 percent by weight of the overall dip, and wherein the lipid is the fat and oil component of the liquid shortening.

For example, at Col. 1, lines 19-22, McGinley teaches a fat substitute which “relates to a substantially spheroidal shaped particulate aggregate of microcrystalline cellulose (MCC) and a galactomannan gum (GG) . . . which has a fat-like consistency, appearance and mouth feel when reconstituted in food.” McGinley specifically defines aggregate at Col. 1, lines 31-35, as “a stable, substantially physical mixture of two or more components in its wet or dry state but which is more firmly bound when dried, yet remains intact if reconstituted in water under typical food processing conditions.” McGinley further teaches at Col. 5, lines 20-26, that aggregate stability is achieved when the gum in the aggregate composition is present “in an amount sufficient to cover and form a stable aggregate with the MCC and thus provide sufficient cover of the MCC particles to mask the characteristic taste of the cellulose.” At Col. 5, lines 32-33, McGinley further notes that particulate aggregates are produced such that “the gum covers, i.e., is absorbed on, the cellulose.” Optionally as taught by McGinley at Col. 6, lines 45-61, a third component can be added to the aggregate “to impart additional properties” to the aggregate, such as “for the purpose of modifying the surface characteristics of the MCC-GG aggregate by creating the flavor and taste sensation of fat.” The coated microcrystalline cellulose, which is arguably a coated dietary fiber, is dispersed in water to form a fat substitute as disclosed by McGinley at Col. 7 line 57 to Col. 8 line 20. At Col. 8, lines 21-25, McGinley teaches the fat substitute can be used in “spreads,” and in dressings at Cols. 10-12, Examples 2 and 3. Thus, McGinley teaches spreads and dressings comprising a non-liquid fat substitute comprising coated dietary fiber, and water, wherein the coated dietary fiber can optionally further comprise a flavor enhancing lipid, but McGinley does not teach dips comprising emulsified liquid shortening comprising non-coated dietary fiber gel, water and lipid, wherein the lipid is the fat and oil component of the liquid shortening.

Further, Application No. 10/689,267 in view of McGinley teaches spreads having a range of coated dietary fiber such that the solids contained within the coated dietary fiber represent 0.1

percent to 0.5 percent and 0.1 percent to 3.0 percent by weight of the overall spreads. This application, Application No. 10/689,193 on the other hand teaches dips having a different and broader range of non-coated dietary fiber of 0.5 percent to 7.0 percent by weight of the overall dip. Clearly, Application No. 10/689,267 in view of McGinley teaches spreads having a narrower range of a coated dietary fiber, and does not teach dips as in Application No. 10/689,193 having a broader range of a substantially different element, non-coated dietary fiber gel.

The References Lack Any Suggestion to Combine

There is nothing disclosed in copending Application No. 10/689,267 in view of McGinley that teaches the modification of the references suggested by the Examiner. Obviousness requires that the suggestion to make the claimed invention must found in the prior art. *See generally, In re Vaeck*, 947 F.2d 488, 493 (Fed. Cir. 1991). Such a suggestion is lacking in the cited references. Even if the references fully taught the Applicant's invention, the Applicant traverses the rejection because nothing in copending Application No. 10/689,267 in view of McGinley affirmatively suggests making the cited combination.

Application No. 10/689,267 teaches dressings comprising an emulsified liquid shortening, a fat substitute, comprising dietary fiber gel, water, and lipid. McGinley teaches dressings and other specific food products such as spreads comprising non-liquid fat substitutes comprising coated microcrystalline cellulose. The Applicant's invention on the other hand teaches dips comprising an emulsified liquid shortening comprising non-coated dietary fiber gel. The specification, as amended, discloses that the dietary fiber gel in the Applicant's invention comprises non-coated amorphous insoluble dietary fiber. Nothing in Application No. 10/689,267 and McGinley teaches or suggests dips comprising liquefied fat substitutes, such as emulsified liquid shortening, comprising non-coated dietary fiber.

For example, at Col. 1, lines 19-22, McGinley teaches a fat substitute which "relates to a substantially spheroidal shaped particulate aggregate of microcrystalline cellulose (MCC) and a galactomnannan gum (GG) . . . which has a fat-like consistency, appearance and mouth feel when reconstituted in food." McGinley defines aggregate at Col. 1, lines 31-35, as "a stable, substantially physical mixture of two or more components in its wet or dry state but which is more firmly bound when dried, yet remains intact if reconstituted in water under typical food

processing conditions.” McGinley further teaches at Col. 5, lines 20-26, that aggregate stability is achieved when the gum in the aggregate composition is present “in an amount sufficient to cover and form a stable aggregate with the MCC and thus provide sufficient cover of the MCC particles to mask the characteristic taste of the cellulose.” At Col. 5, lines 32-33, McGinley further notes that particulate aggregates are produced such that “the gum covers, i.e., is absorbed on, the cellulose.” Clearly, McGinley does not teach or suggest liquefied fat substitutes such as emulsified liquid shortening that comprises non-coated dietary fiber gel, water, and lipid.

While McGinley may suggest coating dietary fiber with a gum, McGinley does not suggest that gum-coated particulate microcrystalline cellulose can be replaced or substituted by a non-particulate amorphous insoluble dietary fiber that is not coated with gum. Further, one skilled in the art would know gum-coated particulate microcrystalline cellulose and non-particulate amorphous insoluble dietary fiber that is not coated are different materials. In addition, McGinley teaches away from not coating the dietary fiber because at Col. 5, lines 20-26, McGinley points out that coating “mask[s] the characteristic taste of the cellulose.”

Finally, Application No. 10/689,267 specifically teaches the food product specie of dressings that comprise emulsified liquid shortening, a fat substitute that comprises dietary fiber gel, water, and lipid. Application No. 10/689,267 does not teach or suggest any other food product species formulations that use an emulsified liquid shortening comprising dietary fiber gel, water, and lipid.

Combining the References Lacks a Reasonable Expectation of Success

There is nothing disclosed in copending Application No. 10/689,267 in view of McGinley that teaches a reasonable expectation of success in combining the references as suggested by the Examiner. Obviousness exist when the references provide a reasonable expectation of success for the proposed combination. *See generally, In re Merck & Co., Inc.*, 800 F.2d 1091, 1097-98 (Fed. Cir. 1986). Whether the combination is obvious or unobvious requires consideration of all the evidence and resultant findings. *See also, In re Rinehart.*, 531 F.2d 1048, 1052 (CCPA 1976). Such an expectation of success is lacking in the cited reference. Even if the references fully taught the Applicants invention, the Applicant traverses the rejection because nothing in copending Application No. 10/689,267 in view of McGinley leads to an expectation of success for the identified combination.

McGinley teaches fiber in the form of particulate microcrystalline cellulose produced from the acid hydrolysis of wood pulp while the dietary fiber gel disclosed in the Applicant's application comes from the alkaline treatment of agricultural by-products. Fiber, which is naturally produced by plants, is a chemically complex and chemically diverse substance that is available from a variety of sources such as wood pulp and agricultural by-products such as seed brans, hulls, and so forth. Raw fiber is typically a solid that can be processed to produce a wide variety of products. One skilled in the art would know fiber products depend on the fiber source and the processing.

The Applicant's invention claims dips made with an emulsified liquid shortening composition comprising dietary fiber gel derived from agricultural by-products grains such as seed brans, hulls, and so forth. The specification, as amended, discloses that the dietary fiber gel in the Applicant's invention comprises non-particulate amorphous insoluble dietary fiber derived from the alkaline treatment of agricultural by-products. Nothing in the cited references teach any expectation that a non-particulate amorphous insoluble fiber derived from the alkaline processing of agricultural by-products can be used in a fat substitute formulation based on coated particle of microcrystalline cellulose derived from the acid hydrolysis of wood fiber.

For example, McGinley at Col. 4, lines 39-44, teaches that the microcrystalline cellulose employed in the disclosed fat substitutes may be "obtained from wood pulp which has been hydrolyzed with acid in a known manner." Although McGinley does not specifically limit the source of microcrystalline cellulose to the acid treatment of wood fiber, McGinley gives no other examples as to other possible sources of microcrystalline cellulose. Because McGinley only specifically teaches the acid treatment of wood fiber, only other acid treated wood fiber products can be expected to be successfully used. Further, one skilled in the art would know that a fiber product produced by the acid treatment of wood fiber differs from a fiber product produced by the alkaline treatment of agricultural fiber. Clearly, McGinley does not teach any expectation that dietary fiber gel derived from the alkaline treatment of agricultural by-products that substantially disrupts cellular structure can be successfully used in a formulation of a fat substitute that comprises microcrystalline cellulose derived from the acid treatment of wood fiber.

In addition, McGinley teaches the use of lipid to impart flavor enhancement to fiber particles used in the formulation of a fat substitute. On the other hand the Applicant's

application describes a lipid that is a fat and oil component of the emulsified liquid shortening. Further, one skilled in the art would know that a lipid used for flavor enhancement differs from a lipid used as a fat and oil component. Clearly, McGinley gives no expectation that a lipid used to impart flavor enhancing characteristics can be successfully used as a fat and oil component of an emulsified liquid shortening.

For example at Col. 6, lines 55-65, McGinley teaches that “the lipophilic materials . . . form[] a thin layer of lipophilic coating on the MCC-GG aggregate to produce substantially insoluble spheroidal particles with flavor and taste characteristics more closely associated with fats.” In a reference to emulsification, McGinley at Col. 6 line 65 to Col. 7 line 9 teaches the emulsification of lipid and surface active agent so that the lipid can “be effectively absorbed on the MCC-GG” aggregate surface. While McGinley may provide an expectation that other lipids that are absorbed on the aggregate surface may enhance the flavor of a fat substitute comprising the aggregate, clearly McGinley provides no expectation of emulsifying a lipid used as a fat and oil component with dietary fiber and water.

Finally, Application No. 10/689,267 teaches dressings comprising emulsified liquid fiber gel, while this application, Application No. 10/689,193, is directed towards the use of emulsified liquid shortenings in a different food species, dips. Although Application No. 10/689,267 for dressings may give rise to an inherent expectation of success for a genus of food products that comprise emulsified liquid shortening comprising dietary fiber gel, nothing in Application No. 10/689,267 provides any expectation that separate and distinct food product species, such as dips, can be successfully formulated with an emulsified liquid shortening comprising dietary fiber gel, water, and lipid.

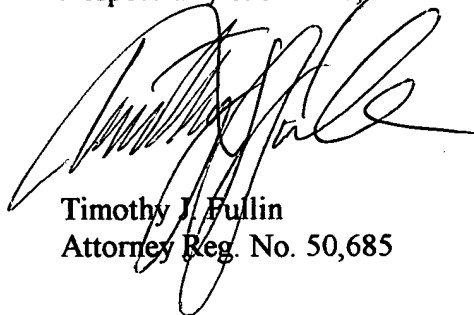
Applicant has amended the specification to clarify the foregoing distinctions. In view of the amendment, and above arguments, Applicant requests that the rejections of Claims 1-2 as being obvious under 35 U.S.C. § 103 (a) be withdrawn. Further, in view of the amendment, and above arguments, Applicant requests that the provisional rejections of Claims 1-2 under nonstatutory obviousness-type double patenting based on a judicially created doctrine be withdrawn.

The cited fat substitutes of McGinley are functionally different from the Applicant's invention. In the cited reference, fat substitution is through the use of a solid fat replacement in

the form of gels, flakes, powders, and so forth. In the Applicant's invention, fat substitution is with a liquid fat replacement. Applicant's use of liquid fat replacements is not taught in the mentioned references.

Applicant believes that the amended patent application is now in condition for allowance. Accordingly, the Applicant respectfully requests that a Notice of Allowance be issued in this case. The Examiner is invited to contact the undersigned by telephone or facsimile if the Examiner believes this would advance the prosecution of the matter.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Timothy J. Fullin', is written over the typed name and registration number.

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